

MEMO

To: Tasman District Council. Attn: Ardi Ash

From: Warren Sharp

Date: 2 December 2025

Job No. NZL.00306

Re: Mapua East Sediment Sampling

EHS Support New Zealand Ltd (EHS Support) was engaged by Tasman District Council (TDC) to undertake sediment sampling within the beach area east of the former Fruitgrowers Chemical Company (FCC) site in Mapua. This memorandum sets out the results of the sampling undertaken.

1. Background

Remediation of the former FCC site was completed in 2007. Ongoing monitoring of estuarine areas east and west of the FCC site has been undertaken since the completion of the remedial works program. Monitoring conducted by Davidson Environmental Ltd in May 2025, as set out in the Davidson Environmental Ltd report dated 11 September 2025, *Post-remediation contaminant monitoring of sediment and shellfish from estuarine areas adjacent to the former Fruitgrowers Chemical Company (FCC) site, Mapua, Nelson*, detected the presence of highly elevated Total DDT (93 mg/kg) in sampling site JME088 (6-10 cm depth) within the beach east of the FCC site. The laboratory identified 'prills' in this sample. The concentration detected was thought to have resulted from excavation works conducted on the beach in 2022, with these works potentially re-distributing deeper contamination to the surface. An elevated Total DDT concentration of 2.2 mg/kg was detected at east beach sample location JME090.

EHS was engaged by TDC to undertake further sampling within the east beach. The objective of the sampling undertake was to verify the May 2025 sampling results, and to delineate the extent of any elevated contamination detected.

2. Methodology

Sampling was conducted by EHS Support during low tide periods on 24 and 25 June 2025. Samples were collected from 13 locations (S1 to S13) on a 5m grid basis centred on previous sampling locations JME088 and JME090. Sampling locations are indicated on **Figure 1**. EHS Support sample locations S13 and S4 were at the locations of previous samples JME088 and JME090 as based on the Davidson Ltd sampling plan included with their report.

Collection of samples using sediment coring equipment proved ineffective due to beach conditions (coarse gravel). Given this, a test pit was manually excavated at each sample location, with samples collected using a trowel which was cleaned between samples. At each location samples were collected at surface (0 – 2 cm depth) and from the 2 – 10 cm depth interval. Deeper samples (20-30 cm depth) were also collected at sampling locations S10, S11, S12 and S13 (these deeper samples were not laboratory analysed).



Collected samples were placed in a chilled container and submitted to Hill Laboratories Ltd in Hamilton. All surface and 2 – 10 cm depth samples were analysed for Organochlorine Pesticides (OCPs). Given the objective of the sampling program was to further assess high level Total DDT contamination, and as directed by TDC, the samples were analysed at a screen level detection limit.

No visual evidence of contamination (discolouration, prills) was observed during the sampling program.

The fieldwork was undertaken by a EHS Support Suitably Qualified and Experienced Practitioner (SQEP). With regards to laboratory analysis, Hill Laboratories is a recognised laboratory endorsed by International Accreditation New Zealand (IANZ). The analyses undertaken were performed in accordance with the terms of accreditation. No issues were noted for the samples analysed. Given the objective of the investigation and nature of the sediment (coarse gravel, OCP analysis), no sediment quality assurance samples were collected

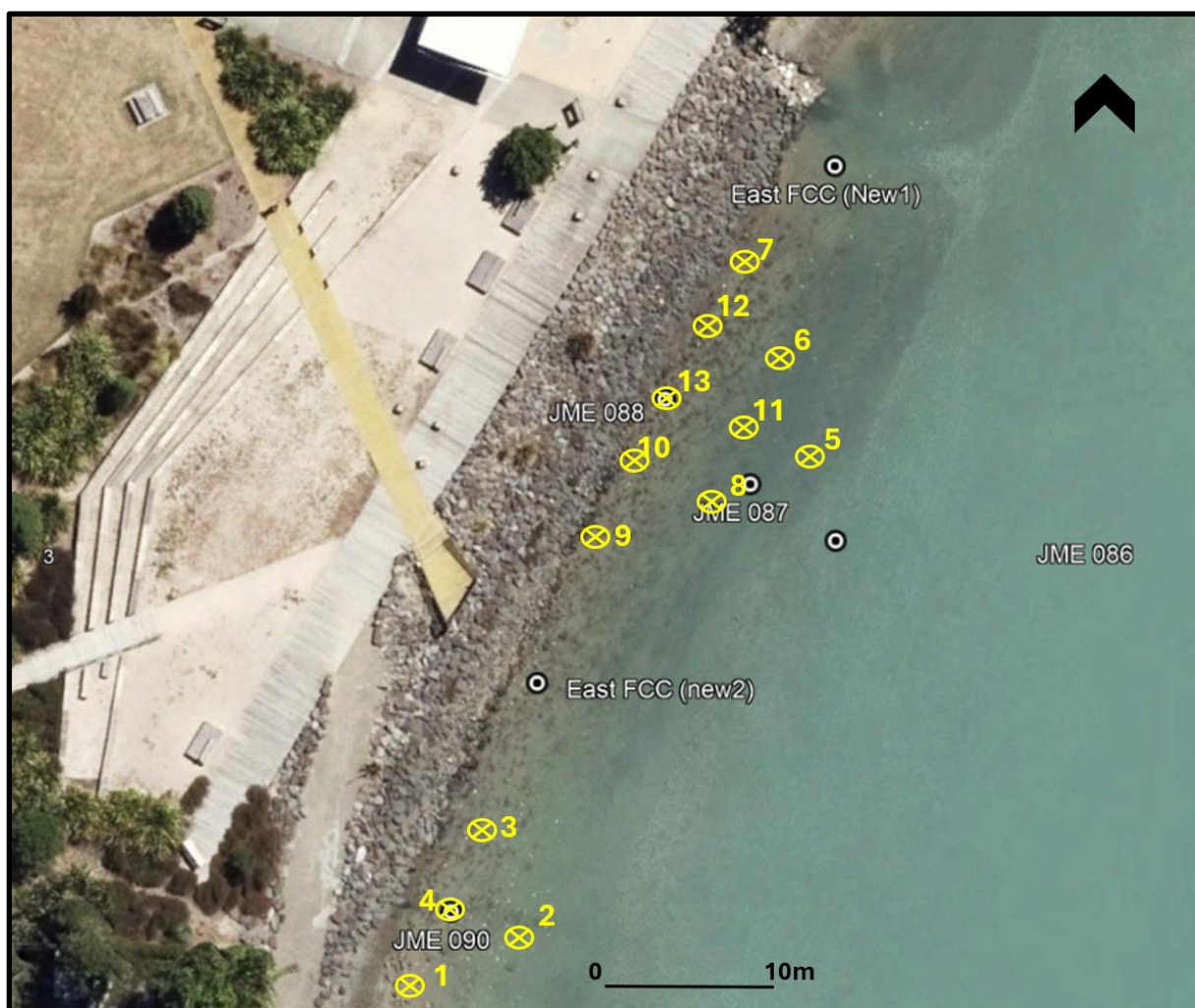


FIGURE 1 – SAMPLE LOCATIONS



3. Results

Analytical results are summarised in **Table 1**. The laboratory report is attached.

With the exception of sample S13, no OCPs were detected at concentrations above the laboratory limit of detection (screen level analysis) in any of the samples analysed.

Sample S13, being the same location as May 2025 Davidson Ltd sample SME088, returned a total DDT of 0.3 mg/kg in the surface sample. Dieldrin was also detected at a concentration of 0.026 mg/kg in this sample. The S13 2-10 cm sample (equivalent to the 93 mg/kg Davidson Ltd result) returned a not detectable (below the laboratory limit of detection) result.

Based on the results of the June 2025 sampling exercise, it is considered likely that the May 2025 Davidson Ltd sampling event returned anomalous results, not representative of overall site conditions and associated risk. Elevated contaminant concentrations may be present, possibly as a result of cross contamination of surface/shallow sediment from the 2022 trenching work in the area; however, the July 2025 sampling results suggest the degree and extent of such contamination is likely very minor and highly heterogeneous.

Table 1: Analytical Results - Mapua East Sediment June 2025				
			DDT (total)	Dieldrin
Sample	Depth (cm)	Lab ID		
S1	0-2	3925093.1	< 0.09	< 0.015
	2-10	3925093.2	< 0.08	< 0.013
S2	0-2	3925093.30	< 0.10	< 0.016
	2-10	3925093.4	< 0.08	< 0.012
S3	0-2	3925093.5	< 0.09	< 0.014
	2-10	3925093.6	< 0.09	< 0.015
S4	0-2	3925093.7	< 0.09	< 0.014
	2-10	3925093.8	< 0.08	< 0.013
S5	0-2	3925093.9	< 0.08	< 0.013
	2-10	3925093.1	< 0.08	< 0.013
S6	0-2	3925093.11	< 0.07	< 0.012
	2-10	3925093.12	< 0.07	< 0.012
S7	0-2	3925093.13	< 0.10	< 0.016
	2-10	3925093.14	< 0.08	< 0.012
S8	0-2	3925093.15	< 0.08	< 0.013
	2-10	3925093.16	< 0.07	< 0.012
S9	0-2	3925093.17	< 0.09	< 0.015
	2-10	3925093.18	< 0.08	< 0.013
S10	0-2	3925093.19	< 0.09	< 0.014
	2-10	3925093.2	< 0.08	< 0.013
S11	0-2	3925093.22	< 0.10	< 0.017
	2-10	3925093.23	< 0.08	< 0.012
S12	0-2	3925093.25	< 0.07	< 0.012
	2-10	3925093.26	< 0.08	< 0.014
S13	0-2	3925093.28	0.3	0.026
	2-10	3925093.29	< 0.08	< 0.012
Notes: All results in mg/kg				



4. Closure

We trust this report satisfies your requirements at this time. Please contact the undersigned should you have any questions.

EHS Support New Zealand Limited ("EHS Support") has prepared this document in accordance with the usual care and thoroughness of the consulting profession for the use of Tasman District Council and only those third parties who have been authorised in writing by EHS Support to rely on this document. It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this document. This document was prepared on the issue date and is based on the information available at the time of preparation. EHS Support disclaims responsibility for any changes that may have occurred after this time.

Yours Faithfully,

WARREN SHARP
Principal Environmental Geologist, CEnvP – SCS

Certificate of Analysis

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Client:	EHS Support New Zealand Limited	Lab No:	3925093	SPV1
Contact:	Warren Sharp	Date Received:	27-Jun-2025	
	C/- EHS Support New Zealand Limited	Date Reported:	03-Jul-2025	
	Unit 8B 1 Portage Road	Quote No:	138713	
	New Lynn	Order No:		
	Auckland 0600	Client Reference:	NZL 00306	
		Submitted By:	Warren Sharp	

Sample Type: Soil

Sample Name:	MS1-0	MS1-2->10	MS2-0	MS2-2->10	MS3-0
	24-Jun-2025	24-Jun-2025	24-Jun-2025	24-Jun-2025	24-Jun-2025
Lab Number:	3925093.1	3925093.2	3925093.3	3925093.4	3925093.5

Individual Tests

Dry Matter	g/100g as rcvd	70	78	64	82	69
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Organochlorine Pesticides Screening in Soil

Aldrin	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
alpha-BHC	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
beta-BHC	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
delta-BHC	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
cis-Chlordane	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
trans-Chlordane	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
2,4'-DDD	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
4,4'-DDD	mg/kg dry wt	< 0.015	< 0.013	< 0.016	0.023	< 0.014
2,4'-DDE	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
4,4'-DDE	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
2,4'-DDT	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
4,4'-DDT	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	0.026
Total DDT Isomers	mg/kg dry wt	< 0.09	< 0.08	< 0.10	< 0.08	< 0.09
Dieldrin	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Endosulfan I	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Endosulfan II	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Endosulfan sulphate	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Endrin	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Endrin aldehyde	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Endrin ketone	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Heptachlor	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Heptachlor epoxide	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Hexachlorobenzene	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014
Methoxychlor	mg/kg dry wt	< 0.015	< 0.013	< 0.016	< 0.012	< 0.014

Sample Name:	MS3-2->10	MS4-0	MS4-2->10	MS5-0	MS5-2->10
	24-Jun-2025	24-Jun-2025	24-Jun-2025	24-Jun-2025	24-Jun-2025
Lab Number:	3925093.6	3925093.7	3925093.8	3925093.9	3925093.10

Individual Tests

Dry Matter	g/100g as rcvd	70	72	78	75	78
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Organochlorine Pesticides Screening in Soil

Aldrin	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
alpha-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
beta-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
delta-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Sample Type: Soil						
Sample Name:		MS3-2->10 24-Jun-2025	MS4-0 24-Jun-2025	MS4-2->10 24-Jun-2025	MS5-0 24-Jun-2025	MS5-2->10 24-Jun-2025
Lab Number:		3925093.6	3925093.7	3925093.8	3925093.9	3925093.10
Organochlorine Pesticides Screening in Soil						
gamma-BHC (Lindane)	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
cis-Chlordane	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
trans-Chlordane	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
2,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
4,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
2,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
4,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
2,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
4,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Total DDT Isomers	mg/kg dry wt	< 0.09	< 0.09	< 0.08	< 0.08	< 0.08
Dieldrin	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Endosulfan I	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Endosulfan II	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Endosulfan sulphate	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Endrin	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Endrin aldehyde	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Endrin ketone	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Heptachlor	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Heptachlor epoxide	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Hexachlorobenzene	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Methoxychlor	mg/kg dry wt	< 0.015	< 0.014	< 0.013	< 0.013	< 0.013
Sample Name:		MS6-0 24-Jun-2025	MS6-2->10 24-Jun-2025	MS7-0 24-Jun-2025	MS7-2->10 24-Jun-2025	MS8-0 24-Jun-2025
Lab Number:		3925093.11	3925093.12	3925093.13	3925093.14	3925093.15
Individual Tests						
Dry Matter	g/100g as rcvd	82	86	61	84	75
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
alpha-BHC	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
beta-BHC	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
delta-BHC	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
gamma-BHC (Lindane)	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
cis-Chlordane	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
trans-Chlordane	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
2,4'-DDD	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
4,4'-DDD	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
2,4'-DDE	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
4,4'-DDE	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
2,4'-DDT	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
4,4'-DDT	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	0.060
Total DDT Isomers	mg/kg dry wt	< 0.07	< 0.07	< 0.10	< 0.08	< 0.08
Dieldrin	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Endosulfan I	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Endosulfan II	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Endosulfan sulphate	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Endrin	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Endrin aldehyde	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Endrin ketone	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Heptachlor	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Heptachlor epoxide	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Hexachlorobenzene	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013
Methoxychlor	mg/kg dry wt	< 0.012	< 0.012	< 0.016	< 0.012	< 0.013

Sample Type: Soil						
Sample Name:		MS8-2->10 24-Jun-2025	MS9-0 24-Jun-2025	MS9-2->10 24-Jun-2025	MS10-0 25-Jun-2025	MS10-2->10 25-Jun-2025
Lab Number:		3925093.16	3925093.17	3925093.18	3925093.19	3925093.20
Individual Tests						
Dry Matter	g/100g as rcvd	84	68	77	71	77
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
alpha-BHC	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
beta-BHC	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
delta-BHC	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
gamma-BHC (Lindane)	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
cis-Chlordane	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
trans-Chlordane	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
2,4'-DDD	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
4,4'-DDD	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
2,4'-DDE	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
4,4'-DDE	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
2,4'-DDT	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	0.017
4,4'-DDT	mg/kg dry wt	< 0.012	< 0.015	< 0.013	0.053	0.036
Total DDT Isomers	mg/kg dry wt	< 0.07	< 0.09	< 0.08	< 0.09	< 0.08
Dieldrin	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Endosulfan I	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Endosulfan II	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Endosulfan sulphate	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Endrin	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Endrin aldehyde	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Endrin ketone	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Heptachlor	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Heptachlor epoxide	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Hexachlorobenzene	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Methoxychlor	mg/kg dry wt	< 0.012	< 0.015	< 0.013	< 0.014	< 0.013
Sample Name:		MS11-0 25-Jun-2025	MS11-2->10 25-Jun-2025	MS12-0 25-Jun-2025	MS12-2->10 25-Jun-2025	MS13-0 25-Jun-2025
Lab Number:		3925093.22	3925093.23	3925093.25	3925093.26	3925093.28
Individual Tests						
Dry Matter	g/100g as rcvd	60	82	84	75	74
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
alpha-BHC	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
beta-BHC	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
delta-BHC	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
cis-Chlordane	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
trans-Chlordane	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
2,4'-DDD	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	0.025
4,4'-DDD	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	0.062
2,4'-DDE	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
4,4'-DDE	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	0.023
2,4'-DDT	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	0.044
4,4'-DDT	mg/kg dry wt	< 0.017	0.012	< 0.012	< 0.014	0.150
Total DDT Isomers	mg/kg dry wt	< 0.10	< 0.08	< 0.07	< 0.08	0.30
Dieldrin	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	0.026
Endosulfan I	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Endosulfan II	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Endosulfan sulphate	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Endrin	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Endrin aldehyde	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Endrin ketone	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Heptachlor	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014

Sample Type: Soil						
Sample Name:		MS11-0 25-Jun-2025	MS11-2->10 25-Jun-2025	MS12-0 25-Jun-2025	MS12-2->10 25-Jun-2025	MS13-0 25-Jun-2025
Lab Number:		3925093.22	3925093.23	3925093.25	3925093.26	3925093.28
Organochlorine Pesticides Screening in Soil						
Heptachlor epoxide	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Hexachlorobenzene	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014
Methoxychlor	mg/kg dry wt	< 0.017	< 0.012	< 0.012	< 0.014	< 0.014

Sample Name:		MS13-2->10 25-Jun-2025				
Lab Number:		3925093.29				

Individual Tests		
Dry Matter	g/100g as rcvd	83
Organochlorine Pesticides Screening in Soil		
Aldrin	mg/kg dry wt	< 0.012
alpha-BHC	mg/kg dry wt	< 0.012
beta-BHC	mg/kg dry wt	< 0.012
delta-BHC	mg/kg dry wt	< 0.012
gamma-BHC (Lindane)	mg/kg dry wt	< 0.012
cis-Chlordane	mg/kg dry wt	< 0.012
trans-Chlordane	mg/kg dry wt	< 0.012
2,4'-DDD	mg/kg dry wt	< 0.012
4,4'-DDD	mg/kg dry wt	< 0.012
2,4'-DDE	mg/kg dry wt	< 0.012
4,4'-DDE	mg/kg dry wt	< 0.012
2,4'-DDT	mg/kg dry wt	< 0.012
4,4'-DDT	mg/kg dry wt	< 0.012
Total DDT Isomers	mg/kg dry wt	< 0.08
Dieldrin	mg/kg dry wt	< 0.012
Endosulfan I	mg/kg dry wt	< 0.012
Endosulfan II	mg/kg dry wt	< 0.012
Endosulfan sulphate	mg/kg dry wt	< 0.012
Endrin	mg/kg dry wt	< 0.012
Endrin aldehyde	mg/kg dry wt	< 0.012
Endrin ketone	mg/kg dry wt	< 0.012
Heptachlor	mg/kg dry wt	< 0.012
Heptachlor epoxide	mg/kg dry wt	< 0.012
Hexachlorobenzene	mg/kg dry wt	< 0.012
Methoxychlor	mg/kg dry wt	< 0.012

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	1-20, 22-23, 25-26, 28-29
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	1-20, 22-23, 25-26, 28-29

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 30-Jun-2025 and 03-Jul-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

A handwritten signature in purple ink, consisting of a large stylized 'K' followed by the name 'Harrison' in a cursive script.

Kim Harrison MSc
Client Services Manager - Environmental

Quality Assurance Report

Page 1 of 8

Client:	EHS Support New Zealand Limited	Lab No:	3925093	QCPv1
Contact:	Warren Sharp	Date Received:	27-Jun-2025	
	C/- EHS Support New Zealand Limited	Date Reported:	03-Jul-2025	
	Unit 8B 1 Portage Road	Quote No:	138713	
	New Lynn	Order No:		
	Auckland 0600	Client Reference:	NZL 00306	
		Submitted By:	Warren Sharp	

Sample Specific QCs

Organochlorine Pesticides Screening in Soil

		3925093.1	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	106	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.2	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	105	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.3	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	100	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.4	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	106	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.5	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	104	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.6	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	105	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.7	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	96	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.8	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	104	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.9	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	98	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.10	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	100	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3925093.11	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	120	40 – 120	No

Organochlorine Pesticides Screening in Soil			
	3925093.12	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	109	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.13	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	101	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.14	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	101	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.15	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	104	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.16	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	105	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.17	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	99	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.18	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	107	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.19	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	109	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.20	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	104	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.22	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	105	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.23	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	104	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.25	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	104	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.26	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	104	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.28	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	106	40 – 120	No
Organochlorine Pesticides Screening in Soil			
	3925093.29	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene %	104	40 – 120	No

Blank QCs

Blank 1 PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8972.1

		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
alpha-BHC	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
beta-BHC	mg/kg dry wt	< 0.010 ± 0.0028	0.0 – 0.0100	No
delta-BHC	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
cis-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
trans-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
2,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
4,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
2,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
4,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0023	0.0 – 0.0100	No
2,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0021	0.0 – 0.0100	No
4,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0017	0.0 – 0.0100	No
Dieldrin	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan I	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Endosulfan II	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan sulphate	mg/kg dry wt	< 0.010 ± 0.0013	0.0 – 0.0100	No
Endrin	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No
Endrin aldehyde	mg/kg dry wt	< 0.010 ± 0.0019	0.0 – 0.0100	No
Endrin ketone	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
Heptachlor	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Heptachlor epoxide	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
Hexachlorobenzene	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Methoxychlor	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No

Blank 1 PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8976.1

		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
alpha-BHC	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
beta-BHC	mg/kg dry wt	< 0.010 ± 0.0028	0.0 – 0.0100	No
delta-BHC	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
cis-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
trans-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
2,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
4,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
2,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
4,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0023	0.0 – 0.0100	No
2,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0021	0.0 – 0.0100	No
4,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Dieldrin	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan I	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Endosulfan II	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan sulphate	mg/kg dry wt	< 0.010 ± 0.0013	0.0 – 0.0100	No
Endrin	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No

Blank 1 PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8976.1

		Results	Control Limits	Outside Limit (Yes/No)
Endrin aldehyde	mg/kg dry wt	< 0.010 ± 0.0019	0.0 – 0.0100	No
Endrin ketone	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
Heptachlor	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Heptachlor epoxide	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
Hexachlorobenzene	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Methoxychlor	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No

Blank 1 PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8977.1

		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
alpha-BHC	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
beta-BHC	mg/kg dry wt	< 0.010 ± 0.0028	0.0 – 0.0100	No
delta-BHC	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
cis-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
trans-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
2,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
4,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
2,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
4,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0023	0.0 – 0.0100	No
2,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0021	0.0 – 0.0100	No
4,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0017	0.0 – 0.0100	No
Dieldrin	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan I	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Endosulfan II	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan sulphate	mg/kg dry wt	< 0.010 ± 0.0013	0.0 – 0.0100	No
Endrin	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No
Endrin aldehyde	mg/kg dry wt	< 0.010 ± 0.0019	0.0 – 0.0100	No
Endrin ketone	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
Heptachlor	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Heptachlor epoxide	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
Hexachlorobenzene	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Methoxychlor	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No

Blank 1 PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8982.1

		Results	Control Limits	Outside Limit (Yes/No)
4,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
4,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0023	0.0 – 0.0100	No
2,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0021	0.0 – 0.0100	No
4,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0017	0.0 – 0.0100	No

QC Spike QCs

LCS OC PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8972.2

		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	107 ± 33	80 – 121	No
alpha-BHC	%	103 ± 31	76 – 121	No
beta-BHC	%	107 ± 41	75 – 113	No
delta-BHC	%	109 ± 38	74 – 114	No

LCS OC PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8972.2				
		Results	Control Limits	Outside Limit (Yes/No)
gamma-BHC (Lindane)	%	104 ± 30	78 – 116	No
cis-Chlordane	%	105 ± 34	78 – 118	No
trans-Chlordane	%	97 ± 30	76 – 121	No
2,4'-DDD	%	93 ± 34	75 – 114	No
4,4'-DDD	%	110 ± 53	75 – 120	No
2,4'-DDE	%	114 ± 37	73 – 118	No
4,4'-DDE	%	100 ± 51	73 – 116	No
2,4'-DDT	%	98 ± 51	70 – 124	No
4,4'-DDT	%	97 ± 57	65 – 120	No
Dieldrin	%	102 ± 45	84 – 124	No
Endosulfan I	%	106 ± 39	81 – 120	No
Endosulfan II	%	103 ± 46	72 – 117	No
Endosulfan sulphate	%	105 ± 66	76 – 120	No
Endrin	%	109 ± 72	78 – 124	No
Endrin aldehyde	%	115 ± 65	84 – 127	No
Endrin ketone	%	98 ± 48	69 – 115	No
Heptachlor	%	106 ± 37	74 – 120	No
Heptachlor epoxide	%	109 ± 31	79 – 119	No
Hexachlorobenzene	%	103 ± 36	77 – 116	No
Methoxychlor	%	105 ± 70	70 – 125	No

LCS OC/PAH PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8976.2				
		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	105 ± 32	80 – 121	No
alpha-BHC	%	103 ± 31	76 – 121	No
beta-BHC	%	94 ± 36	75 – 113	No
delta-BHC	%	101 ± 35	74 – 114	No
gamma-BHC (Lindane)	%	104 ± 30	78 – 116	No
cis-Chlordane	%	103 ± 33	78 – 118	No
trans-Chlordane	%	93 ± 28	76 – 121	No
2,4'-DDD	%	79 ± 29	75 – 114	No
4,4'-DDD	%	85 ± 41	75 – 120	No
2,4'-DDE	%	108 ± 35	73 – 118	No
4,4'-DDE	%	91 ± 46	73 – 116	No
2,4'-DDT	%	107 ± 56	70 – 124	No
4,4'-DDT	%	117 ± 68	65 – 120	No
Dieldrin	%	100 ± 45	84 – 124	No
Endosulfan I	%	105 ± 38	81 – 120	No
Endosulfan II	%	94 ± 42	72 – 117	No
Endosulfan sulphate	%	97 ± 61	76 – 120	No
Endrin	%	109 ± 72	78 – 124	No
Endrin aldehyde	%	103 ± 58	84 – 127	No
Endrin ketone	%	99 ± 48	69 – 115	No
Heptachlor	%	112 ± 39	74 – 120	No
Heptachlor epoxide	%	107 ± 30	79 – 119	No
Hexachlorobenzene	%	102 ± 35	77 – 116	No

LCS OC/PAH PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8976.2

		Results	Control Limits	Outside Limit (Yes/No)
Methoxychlor	%	122 ± 81	70 – 125	No

LCS OC/PAH PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8977.2

		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	99 ± 30	80 – 121	No
alpha-BHC	%	98 ± 30	76 – 121	No
beta-BHC	%	95 ± 37	75 – 113	No
delta-BHC	%	102 ± 35	74 – 114	No
gamma-BHC (Lindane)	%	97 ± 28	78 – 116	No
cis-Chlordane	%	97 ± 32	78 – 118	No
trans-Chlordane	%	89 ± 27	76 – 121	No
2,4'-DDD	%	85 ± 31	75 – 114	No
4,4'-DDD	%	99 ± 48	75 – 120	No
2,4'-DDE	%	105 ± 34	73 – 118	No
4,4'-DDE	%	91 ± 46	73 – 116	No
2,4'-DDT	%	92 ± 48	70 – 124	No
4,4'-DDT	%	92 ± 54	65 – 120	No
Dieldrin	%	94 ± 42	84 – 124	No
Endosulfan I	%	97 ± 35	81 – 120	No
Endosulfan II	%	93 ± 41	72 – 117	No
Endosulfan sulphate	%	97 ± 61	76 – 120	No
Endrin	%	101 ± 67	78 – 124	No
Endrin aldehyde	%	106 ± 60	84 – 127	No
Endrin ketone	%	87 ± 42	69 – 115	No
Heptachlor	%	99 ± 34	74 – 120	No
Heptachlor epoxide	%	99 ± 28	79 – 119	No
Hexachlorobenzene	%	95 ± 33	77 – 116	No
Methoxychlor	%	98 ± 65	70 – 125	No

LCS OC/PAH PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8982.2

		Results	Control Limits	Outside Limit (Yes/No)
4,4'-DDD	%	120 ± 58	75 – 120	No
4,4'-DDE	%	94 ± 48	73 – 116	No
2,4'-DDT	%	98 ± 51	70 – 124	No
4,4'-DDT	%	92 ± 54	65 – 120	No

Sample Spike QCs

Spike OC PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8972.16

		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	104 ± 32	83 – 122	No
alpha-BHC	%	100 ± 31	80 – 122	No
beta-BHC	%	105 ± 40	79 – 114	No
delta-BHC	%	106 ± 37	76 – 118	No
gamma-BHC (Lindane)	%	100 ± 29	80 – 117	No
cis-Chlordane	%	103 ± 33	80 – 120	No
trans-Chlordane	%	95 ± 29	79 – 121	No
2,4'-DDD	%	91 ± 33	74 – 120	No
4,4'-DDD	%	107 ± 52	75 – 125	No

Spike OC PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8972.16				
		Results	Control Limits	Outside Limit (Yes/No)
2,4'-DDE	%	112 ± 36	74 – 119	No
4,4'-DDE	%	97 ± 49	76 – 120	No
2,4'-DDT	%	95 ± 50	72 – 126	No
4,4'-DDT	%	93 ± 54	63 – 123	No
Dieldrin	%	100 ± 45	86 – 126	No
Endosulfan I	%	103 ± 38	83 – 120	No
Endosulfan II	%	100 ± 45	72 – 119	No
Endosulfan sulphate	%	102 ± 64	78 – 124	No
Endrin	%	106 ± 70	82 – 126	No
Endrin aldehyde	%	112 ± 63	84 – 131	No
Endrin ketone	%	95 ± 46	70 – 119	No
Heptachlor	%	101 ± 35	79 – 123	No
Heptachlor epoxide	%	106 ± 30	81 – 119	No
Hexachlorobenzene	%	102 ± 35	77 – 119	No
Methoxychlor	%	101 ± 67	71 – 133	No

Spike OC/PAH PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8976.14				
		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	98 ± 30	83 – 122	No
alpha-BHC	%	108 ± 33	80 – 122	No
beta-BHC	%	97 ± 37	79 – 114	No
delta-BHC	%	103 ± 36	76 – 118	No
gamma-BHC (Lindane)	%	99 ± 28	80 – 117	No
cis-Chlordane	%	94 ± 31	80 – 120	No
trans-Chlordane	%	88 ± 27	79 – 121	No
2,4'-DDD	%	83 ± 30	74 – 120	No
4,4'-DDD	%	94 ± 46	75 – 125	No
2,4'-DDE	%	114 ± 37	74 – 119	No
4,4'-DDE	%	86 ± 44	76 – 120	No
2,4'-DDT	%	77 ± 41	72 – 126	No
4,4'-DDT	%	66 ± 39	63 – 123	No
Dieldrin	%	91 ± 41	86 – 126	No
Endosulfan I	%	97 ± 35	83 – 120	No
Endosulfan II	%	88 ± 39	72 – 119	No
Endosulfan sulphate	%	92 ± 58	78 – 124	No
Endrin	%	96 ± 64	82 – 126	No
Endrin aldehyde	%	93 ± 53	84 – 131	No
Endrin ketone	%	80 ± 39	70 – 119	No
Heptachlor	%	108 ± 37	79 – 123	No
Heptachlor epoxide	%	99 ± 28	81 – 119	No
Hexachlorobenzene	%	106 ± 37	77 – 119	No
Methoxychlor	%	81 ± 54	71 – 133	No

Spike OC/PAH PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8982.30				
		Results	Control Limits	Outside Limit (Yes/No)
4,4'-DDD	%	125 ± 61	75 – 125	No
4,4'-DDE	%	101 ± 51	76 – 120	No

Spike OC/PAH PrepWS xsSHOC - WS: Organochlorine Pesticides Soil Analysis: 8982.30				
		Results	Control Limits	Outside Limit (Yes/No)
2,4'-DDT	%	114 ± 60	72 – 126	No
4,4'-DDT	%	105 ± 61	63 – 123	No